PRODUCT INFORMATION

TAROMID A 280 Z1 G6

Polyamide 66 medium viscosity 30% glass fibres reinforced, impact modified, very good mechanical properties, good dimensional stability and low water absorption.

ISO short	ISO 1043: PA66-I-GF30
Form	Pellets

Key Features

- Good impact - stiffness balance
- Improved impact resistance
- Designed for injection moulding applications
- Glass fibres reinforced

Availability

- W: lubricated
- LP: laser printable
- L: UV stabilized
- HT: high resistance to heat
- H: heat stabilized
- All colours

Process

- INJECTION MOULDING

Application

- Household
- Furniture
- Electronic
- Electrical
- Toys
- Sports
- Consumer
- Building
- Automotive

Property	Method	Unit	Value	Condition	State
ELECTRICAL					
Volume Resistivity	IEC 60093	Ohm cm	10E(10)		Cond.
Volume Resistivity	IEC 60093	Ohm cm	10E(13)		Dry
Electric Strength	IEC 60243-1	kV/mm	22	2 mm	
Surface Resistivity	IEC 60093	Ohm	10E(10)		Cond.

PRODUCT INFORMATION

TAROMID A 280 Z1 G6

Dielectric Constant (1 MHz)	IEC 60250	-	5,5		Cond.
Dielectric Constant (1 MHz)	IEC 60250	-	3,5		Dry
Dissipation Factor Frequency (1 MHz)	IEC 60250	-	3		Cond.
Dissipation Factor Frequency (1 MHz)	IEC 60250	-	1,5x10E(-1)		Dry
Tracking Resistance (CTI - Method A)	IEC 60112	Volt	550		Cond.
PHYSICAL					
Density (+23°C)	ISO 1183	g/cm^3	1,33		
Filler content	ISO 3451	%	30	750°C - 1 h	
Granule Humidity	Internal method	%	< 0,10		
Water Absorption (24h / +23°C)	ISO 62	%	0,5		
Water Absorption at Saturation	ISO 62	%	4,5		
Mould Shrinkage (Parallel)	Internal method	%	0,25 - 0,4		
Mould Shrinkage (Normal)	Internal method	%	0,85 - 1,1		
Melting temperature (DSC)	ISO 11357	°C	256		
Melt Flow Rate (MFR)	ISO 1133	g/10 min	2,5	280°C - 1 kg	
Melt Flow Rate (MFR)	ISO 1133	g/10 min	8	280°C - 2,16 kg	
MECHANICAL					
Tensile Modulus	ISO 527-1,2	MPa	5900	Speed 1 mm/min	Cond.
Tensile Modulus	ISO 527-1,2	MPa	8400	Speed 1 mm/min	Dry
Elongation at Break	ISO 527-1,2	%	6	Speed 50 mm/min	Cond.
Elongation at Break	ISO 527-1,2	%	3,5	Speed 50 mm/min	Dry
Tensile Break Strength	ISO 527-1,2	MPa	95	Speed 50 mm/min	Cond.
Tensile Break Strength	ISO 527-1,2	MPa	135	Speed 50 mm/min	Dry
Flexural Modulus	ISO 178	MPa	4800	Speed 1 mm/min	Cond.
Flexural Modulus	ISO 178	MPa	7200	Speed 1 mm/min	Dry
Flexural Break Strength	ISO 178	MPa	150	Speed 1 mm/min	Cond.
Flexural Break Strength	ISO 178	MPa	210	Speed 1 mm/min	Dry

PRODUCT INFORMATION

TAROMID A 280 Z1 G6

IZOD Notched Impact	ASTM D256	J/m	140	-20°C	Dry
IZOD Notched Impact	ISO 180/1A	kJ/m^2	14	-30°C	Dry
IZOD Notched Impact (+23°C)	ISO 180/1A	kJ/m^2	20		Cond.
IZOD Notched Impact (+23°C)	ISO 180/1A	kJ/m^2	16		Dry
IZOD Notched Impact (+23°C)	ASTM D256	J/m	160		Dry
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	25		Cond.
CHARPY Notched Impact (+23°C)	ISO 179/1eA	kJ/m^2	18		Dry
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	93		Cond.
CHARPY Unnotched Impact (+23°C)	ISO 179/1eU	kJ/m^2	86		Dry
CHARPY Notched Impact (-25°C)	ISO 179/1eA	kJ/m^2	9		Dry
CHARPY Notched Impact (-30°C)	ISO 179/1eA	kJ/m^2	9		Dry
CHARPY Unnotched Impact (-30°C)	ISO 179/1eU	kJ/m^2	82		Dry

THERMAL

Softening Temperature - 5 kg (VST/B/50)	ISO 306	°C	235	50°C / h
Deflection Temperature 1,80 MPa (HDT A)	ISO 75A	°C	235	120°C / h
Deflection Temperature 0,45 MPa (HDT B)	ISO 75B	°C	245	
Ball Pressure Test	IEC 60695-10-2	°C	205	
Continuous service temperature (20.000 h)	UL746 B	°C	100 (H 130)	
Continuous service temperature (short term)	UL746 B	°C	140 (H 180)	
Coefficient of linear thermal expansion (parallel)	ISO 11359-1,-2	K^-1	3x10E(-5)	-30°C /+30°C
Coefficient of linear thermal expansion (transversal)	ISO 11359-1,-2	K^-1	6,5x10E(-5)	-30°C /+30°C

FLAMMABILITY

Flame Behaviour (0,97 mm)	UL94	Class	HB	
Glow Wire Flammability Index-GWFI (2 mm)	IEC 60695-2-12	°C	650	
Burning Rate (US-FMVSS 302)	ISO 3795	mm/min	< 80	Thickness > 1,5 mm

INJECTION MOULDING	Value
Drying Temperature (Circulating Air Oven)	80 - 90°C

PRODUCT INFORMATION

TAROMID A 280 Z1 G6

Drying Temperature (Desiccant Dryer)	80 - 90°C
Drying Time (Circulating Air Oven)	3 - 6 hours
Drying Time (Desiccant Dryer)	2 - 4 hours
Suggested Max Moisture	<0,08 %
Suggested Max Regrind	<15 %
Melt Temperature	270 - 300°C
Feed Temperature	100°C
Rear Temperature	275°C
Middle Temperature	285°C
Front Temperature	285°C
Nozzle Temperature	280°C
Mould Temperature	80 - 120°C
Injection Rate	Medium to fast (50 - 150 mm/sec)
Injection Pressure	80 - 130 Mpa
Packing Pressure	30 - 80 Mpa
Back Pressure	0,3 - 0,7 Mpa
Screw Revolving Speed	50 - 100 rpm
Cushion	2 - 6 mm
Screw L/D Ratio	18 - 22
Screw Compression Ratio	2:1 - 3:1
Vent Depth	0,02 mm

Notes During processing, a dehumidifying hopper dryer is recommended at a temperature of 60 to 80°C.